TRANSACTIONS

OF THE

PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, October 2, 1905.

The President, HENRY R. WHARTON, M.D., in the Chair.

STAB WOUND OF THE LUNG.—TREATED BY SUTURE.

DR. JOHN H. JOPSON presented a young man, who, six weeks before, had been stabbed in the fifth interspace in the anterior axillary line of the left side. When the man was seen there was, in addition to signs of a developing pneumothorax, external hemorrhage, severe enough to make its active control desirable. The wound was enlarged, a part of the sixth rib resected, and inspection made of the pericardium and diaphragm, both of which proved to be uninjured. Examination of the collapsed lung revealed a cut, one and one-half inches long, as the active site of the hemorrhage. The lung was grasped by forceps, drawn out, and the hemorrhage controlled by a continuous catgut suture. The pleura was drained by means of a tube and gauze inserted in the original wound and also posteriorly in an opening made for that purpose. Pyocyaneous infection occurred and later pneumonia developed but the patient recovered. Now, at the end of six weeks, there remains a discharging sinus leading to a contracting cavity of moderate size.

In another case seen recently, there were five wounds in the back, one penetrating the pleura. In that instance Dr. Jopson did not resect a rib but simply plugged the wound with gauze. Symptoms similar to those in the present case developed. After two days the gauze was removed to allow the blood to escape. The wound was then replugged for two days when the drainage tube was inserted. The patient was recovering. Dr. Jopson is aware there is a great difference of opinion as to the control of hemorrhage and also regarding other points in the management of these

wounds; in the case shown, the control of hemorrhage seemed to be the imperative indication.

DR. ROBERT G. LE CONTE said that several years ago he had discussed before the Society the subject of penetrating wounds of the lung, and that he had had no reason since to change the opinions then expressed. His conclusions at that time were that when a wound of the lung is causing only slight hemorrhage, the external wound should be closed with gauze and the physical signs of bleeding watched for. When the hemorrhage is more marked, a small drainage tube should be inserted into the pleura and the admission of air regulated according to the difficulty of respiration in the patient. When the hemorrhage is large and the symptoms alarming, open the chest and insert a large drainage tube, so as to form a rapid and complete pneumothorax; at the same time, when necessary, give salt solution intravenously, When this fails to control the hemorrhage, as shown by the increasing failure of the pulse, it becomes necessary to resect one or more ribs and deal radically with the bleeding vessel, either by ligation, suture, or packing. In severe hemorrhage from the lung the first object is to get pressure on that lung, and this is best accomplished by opening the chest and forming a pneumothorax. The admission of air to the pleura is under perfect control, and it can be increased, diminished or stopped at will, should untoward symptoms appear. Besides permitting a collapse of the injured lung and bringing direct pressure upon it, the presence of air favors the formation of a clot in the severed vessel. This procedure in his experience has been sufficient to control a very alarming hemorrhage from the lung, and he had not yet had a case where resection of a rib was necessary, with suture of the lung.

GASTROENTEROSTOMY FOR GASTRIC ULCER.

DR. FRANCIS T. STEWART reported the following case to call attention again to the difficulty sometimes encountered in differentiating between carcinoma and extensive perigastritis the result of chronic ulcer of the stomach, and to emphasize the advisability of exploratory laparotomy in cases in which intra-abdominal malignant disease is believed to be present. In the upper abdomen a palpable carcinoma so often means the time for cure has passed, that some physicians counsel soothing medical treatment rather than surgical interference unless there are indications for some

palliative procedure. One can rarely be absolutely sure, however, that the condition is malignant, and right is on the side of the surgeon who explores such cases with the belief that he is dealing with an inoperable cancer, but with the hope that he will find gastric ulcer, or gall-stones, or chronic pancreatitis, or some other condition equally amenable to treatment, or, that in the event of malignancy, he will find the disease removable or at least so situated as to permit of some measure which will relieve the patient's suffering. His own patient, a man aged forty-two years, was admitted to the Polyclinic Hospital in September, 1904. He had suffered with indigestion for eight years, during which time, at irregular intervals, he would have attacks of vomiting which would relieve the almost constant pain he experienced in the epigastrium. Two years ago his appendix was removed by another surgeon without giving the hoped-for comfort. Three or four days before admission he had vomited a mouthful of blood, and this was the only time as far as he could remember. During the last year he has lost 77 pounds in weight. At the time of examination he was lemon-colored, markedly emaciated, vomiting all food, and suffering constant pain in the upper part of the abdomen. Beneath the upper part of the right rectus lay an immovable tender mass about the size of an adult fist. The stomach contents showed HCl .073 per cent., total acidity 51, and the presence of lactic acid. The stomach was not distended owing to the discomfort produced. Blood examination revealed hemoglobin 45 per cent., leukocytes 5,000 and red cells 3,000,000. Operation was performed September 30, 1904, disclosing a hard tumor involving the pylorus and adherent to and apparently infiltrating the pancreas, liver, colon and anterior abdominal wall. The adjacent lymphatic glands were swollen and indurated. With some difficulty a posterior gastroenterostomy without the loop and without the button, was performed. For six days following the operation the patient vomited large quantities of dark fluid which during one twenty-four hours amounted to 172 ounces. He refused a second operation and was thought at one time to be dying. The vomiting ceased rather suddenly but recurred at intervals for four weeks and then stopped permanently. The patient is now absolutely well, eats all sorts of food without any distress, has gained 62 pounds in weight, and no tumor can be detected on careful palpation of the abdomen.

DR. JOHN H. GIBBON recalled an exactly similar case upon which he operated two years ago. The mass involved the pylorus and was as large as a fist. He performed gastroenterostomy with the idea of later doing a pylorectomy or partial gastrectomy, but as in Dr. Stewart's case the patient went on to perfect recovery and is now perfectly well. Both these cases show the advisability of operating even in the presence of a large mass.

RECOVERY AFTER EXTENSIVE FRACTURE OF SKULL.

DR. WILLIAM L. RODMAN showed a patient upon whom he had operated two weeks previously for an extensive fracture of the skull. The man was struck with a beer bottle thrown with great force which mashed in the right side of the frontal region. When seen he was conscious, with a pulse of 62 and respirations 20. The fracture involved both the vault and the base of the skull and extended into each frontal sinus. Large fragments of the skull were removed and as the jagged bone had torn the meninges, they were further incised and the brain inspected and irrigated. A large blood clot was found but this had caused only slight paresis of the right arm. The frontal sinuses were packed to prevent infection. The patient unexpectedly made a prompt and uneventful recovery.

A TRANSVERSE INCISION FOR THE REMOVAL OF THE APPENDIX.

DR. GWILYM G. DAVIS read a paper on this subject (for which see page 106).

DR. WILLIAM L. RODMAN agreed that McBurney's operation is anatomically correct and usually satisfactory in clean cases; in pus cases it is inadequate and should not be employed. It would seem that any transverse incision is more liable than oblique ones to be followed by ventral hernia though Dr. Davis has not found this to be the case in the operation he advocated.

RADICAL CURE OF DIRECT INGUINAL HERNIA.

DR. GWILYM G. DAVIS read a paper with this title (for which see page 111).

DR. WM. L. RODMAN was much interested in Dr. Davis's statements regarding direct inguinal hernia. He believes the

frequency of this type is greatly over-rated by anatomists; instead of being in the ratio of 1 to 5 as usually stated, he considers 1 to 25 more nearly correct. In more than 300 operations for hernia he has rarely seen the direct form, though recently he operated upon two cases in one day, one of them being a hernia of the bladder, the only one he has ever seen. He has never encountered the conjoined tendon as a covering of a hernia and does not see why it should be so, it being very easy for the gut to slip around the muscle and, going in the direction of least resistance, carry with it the transversalis fascia instead; the former condition may occur in persons with great muscular relaxation but does not take place usually. Dr. Rodman made this point in a lecture several years ago when Dr. Coley was present and this experienced operator agreed that the conjoined tendon was rarely, if ever, present as a hernial covering. Dr. Rodman finds the transplantation of the sheath of the rectus, after Halsted's method, very satisfactory and is resorting to it with increasing frequency and confidence in cases of relaxed musculature. He does not operate on direct hernia with the same confidence that he feels regarding the indirect form but considers Halsted's method of transplanting the anterior sheath of the rectus and also using the cremaster muscle as distinctly strengthening the wall. Operated upon in this way, direct inguinal hernias will seldom recur. He has had but one recurrence of a direct hernia in the comparatively small number he has operated and this was reoperated by Halsted's method *four* years ago and remains perfectly cured. The patient is a motorman, leads a very active life, and has given the cicatrix sufficient test. Recurrence, in any hernia, is rare after one year.

Dr Davis, in closing, said the experience of various surgeons differed greatly as to the proportion of direct to indirect hernias. The number of the former is not large but, though he does not see many of them, he operated upon five hernias in four patients within a short time during the past winter. As to the occurrence of hernia in the transverse incision for appendicitis, in the case of the short incision, the inner half, three-fourths inch, is blocked by the rectus muscle and the outer half by the transversalis and external oblique. When the larger incision is employed, the inner two inches is blocked by the rectus and the outer three inches by the internal oblique and the transversalis which are cut in the direction of their fibers. The only aponeurosis divided diago-

nally to its fibers is that of the external oblique and it seems to heal strongly and satisfactorily.

APPENDICEAL ABSCESS POINTING IN THE RIGHT SIDE OF THE SCROTUM IN A PATIENT FREE FROM HERNIA.

DR. ROBERT G. LE CONTE reported the case of a man, aged twenty-one, colored, who was admitted to the Pennsylvania Hospital on the morning of July 17, 1905, with the following history: Seven days previous to admission he was seized with pain in the abdomen and vomiting. Fever developed soon afterwards, and the abdominal pain continued, with rigidity and tenderness over the appendix. The night before admission the pain suddenly extended to the right scrotum, with the appearance of a tumor in this region.

On admission the temperature was 102°; pulse 104; respirations rapid; facial expression pinched; mucous membranes blanched. The abdomen was slightly distended and tympanitic, with marked rigidity on the right side and exquisite tenderness over the whole lower right quadrant, where a diffuse mass could be made out, the feeling of tumor extending down to the right inguinal ring. The external inguinal ring and upper portion of the scrotum were filled with a tumor the size of an orange, the overlying skin being reddened and edematous. This swelling was tense, dull, without fluctuation or impulse on coughing, and did not diminish with taxis. No history could be elicited of a previous hernia, and as the man had been in bed for a week the probability that this mass might be inflamed omentum was remote. There was no obstruction of the bowels, they having been freely moved the night previous. It was therefore thought that a patent funicular process had existed since birth, into which an appendiceal abscess had ruptured.

Ethyl chlorid and ether were used for narcosis, and a three-inch incision was made over the scrotal mass, extending from the external ring downwards. As the dissection proceeded a thick, inflammatory capsule was opened and a large quantity of pus evacuated with a typical appendiceal odor. The finger readily passed through the inguinal canal into the abdomen, but only a rounded channel could be felt and no portion of the appendix was within reach. Owing to the precarious condition of the patient further operative procedure was not considered. A drainage tube

was inserted through the internal abdominal ring into the abdomen, and a portion of the wound closed with silkworm gut sutures.

The following day the patient's condition was still very serious; pulse rapid and weak; temperature 102.4; discharge on the dressings was very free. He responded fairly well to free stimulation. The day following his condition had somewhat improved. From then on convalescence was fairly rapid, although the temperature remained elevated for a week. The wound gradually closed, until only a small sinus resulted, with persistent discharge.

On August 23 the patient consented to a second operation for the removal of the appendix. This was done by Dr. Hutchinson.

Ethyl chlorid and ether narcosis. Incision was made along outer border of right rectus below umbilicus, and was gradually prolonged until the internal abdominal ring was exposed. On opening the abdomen the intestines were found matted together, and after some difficulty the cecum was recognized and in part isolated. What appeared to be the stump of a sloughed-off appendix was caught and ligated, but later, after breaking up still more of the adhesions in an attempt to trace the sinus to the scrotum, the real stump of the appendix was found in a retrocecal position. It was patulous and oozing a small amount of fecal material. The stump was tied, inverted with a pursestring suture of chromicised gut, followed by a few Lembert interrupted sutures. The tip of the appendix, which had sloughed off, was found still further posterior to the head of the cecum in an opening through the pelvic peritoneum, the cavity resembling somewhat the sac of a hernia. On removing it a fecal concretion about as large as a bean was also found in this pouch. A probe entered in the scrotal sinus passed directly into this pouch, the sinus being entirely posterior to the pelvic peritoneum, and in that sense extra-peritoneal. The sinus was curetted and the sub-cecal region drained with iodoform gauze. The wound was partly closed.

An uninterrupted recovery followed this operation, and by the 10th of September the wound and sinus had entirely closed, and on the 13th the patient was discharged cured.

An interesting and unexpected feature in this case was the perforation of the pelvic peritoneum with the burrowing of the

abscess outside of the peritoneal cavity, the pus finding its way into a previously normal inguinal canal and scrotum. In this case there was no history of a hernia, nor did the operation show that one had previously existed. It seems strange that the pus after having broken through the pelvic peritoneum and reached the psoas muscle—did not follow this muscle and point in the usual position for psoas abscess, instead of entering a normal inguinal canal.

Dr. James P. Hutchinson said the most interesting point to him regarding the case was his mistake of opening too low down for the appendix, though this part was relatively free from adhesions as compared with the upper part. The appendix was difficult to bring up and he believes he tore the organ from its cecal attachment during the attempt at removal. When the other portion was removed it was patulous; hence the belief that the concretion came from the appendix and not from the cecum.

STONE IN THE CYSTIC DUCT.

Dr. Charles F. Mitchell presented a specimen obtained from a patient whose gall-bladder contained seventy-five gall-stones and a quantity of pus. The cystic duct was dilated as was also the hepatic duct, the latter readily admitting a finger. A number of stones were removed from the hepatic duct. Following operation the patient developed many complications and finally died. At autopsy the cystic duct was found to be almost occluded by a faceted stone which was probably left in the hepatic duct at the time of operation.

Dr. John H. Gibbon found the patient referred to by Dr. Mitchell in his ward when he went on duty; the gall-bladder wound was still draining but in a few weeks it entirely closed and there were no symptoms referable to the liver. A rectovaginal fistula which had developed shortly after the gall-bladder operation was the important feature at this time. Dr. Harte regarded it as the result of numerous turpentine enemas; at one time a spoon had also been used in removing hardened feces. Pure pus was discharged from the fistula about one week after Dr. Gibbon took charge and in a few weeks this was repeated. At these times there was a chill and rise of temperature and the patient developed a low sepsis. Dr. Gibbon concluded there was an abscess cavity in the abdomen, originating in the appendix or a

tube, and emptying into the bowel. As Dr. Mitchell found the appendix normal when he operated, that organ seemed to be excluded. Because of the infiltration about the fistula a satisfactory examination of the tubes could not be made. Exploratory operation was possibly too long deferred but the abdomen was finally opened. The peritoneal cavity was full of light, straw-colored fluid. The tubes and ovaries were slightly adherent to the surrounding structures but no abscess was found. The rectum was adherent to the uterus and attempt to separate them resulted in the finger passing into the rectum. In closing the fistula, two other small openings into the vagina were found; the rectum was an unrecognizable cavity containing a quantity of pus. The patient was practically pulseless when operated upon and died in a few days of peritonitis. At autopsy it was found that three or four inches of the rectum in the hollow of the sacrum had sloughed. A small tract extended upward along the sheath of the psoas muscle but there was no distinct cavity at the upper end. No other pathological condition was found although a careful search was made. Dr. Gibbon believes that the lower three or four inches sloughed because of the injury done by the turpentine.

AN UNUSUALLY LARGE PREPATELLAR BURSA.

Dr. John H. Gibbon presented this specimen which before removal was as large as the patient's knee. It was of several years' duration and had never been tapped. The work of the patient had not required the kneeling position. Portions of the bursa are so hard as to suggest the presence of calcareous material but the exact nature has not been determined as the sac has not been opened. A great deal of redundant skin was removed with the bursa. The bursa was dissected away from the patella without rupture and was shown after it had been hardened in formalin solution.